AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

LISTING OF CLAIMS:

1. (Currently Amended) An apparatus for charging a piezoelectric element (10, 20, 30, 40, 50 or 60), characterized in that an activation voltage and an activation charge value for driving the piezoelectric element (10, 20, 30, 40, 50 or 60) is controlled online by a control unit (D) which: (a) adjusts the activation voltage (U) and activation charge values in order to compensate for deviations caused by variations in the piezoelectric element's (10, 20, 30, 40, 50 or 60) layer thickness or the number of layers; and (b) determines the activation voltage and the activation charge value as a function of a correction factor, the correction factor measured in accordance with a manufacturing process.

2. (Original) The apparatus as defined in claim 1, characterized in that the piezoelectric element (10, 20, 30, 40, 50 or 60) is an actuator in a fuel injection system.

3. (Currently Amended) The apparatus of claim 1, characterized in that the control unit determines the activation voltage value and the activation charge values respectively as a function of the correction factor and the piezoelectric element's (10, 20, 30, 40, 50 or 60) normal voltage[[,]] and normal charge ~~and a correction factor~~.

4. (Original) The apparatus of claim 3, characterized in that the correction factor is a function of a piezoelectric element's (10, 20, 30, 40, 50 or 60) normal travel distance and the piezoelectric element's (10, 20, 30, 40, 50 or 60) respective actual travel distance.

5. (Original) The apparatus of claim 4, characterized in that the control unit determines the correction factor by dividing the piezoelectric element's (10, 20, 30, 40, 50 or 60) normal travel distance by the piezoelectric element's (10, 20, 30, 40, 50 or 60) respective actual travel distance.

6. (Previously Presented) The apparatus of claim 3, characterized in that the control unit (D) determines the correction factor as a function of temperature.

7. (Original) The apparatus of claim 5, characterized in that the normal travel distance and the respective actual travel distance are measured at substantially the same temperature.

8. (Currently Amended) A method for charging a piezoelectric element (10, 20, 30, 40, 50 or 60), characterized in that a definition is made, prior to charging, as to a value for an activation voltage (U) and a value for an activation charge of the piezoelectric element (10, 20, 30, 40, 50 or 60) ~~as a function of batch~~ to compensate for a deviation caused by a manufacturing variation ~~in the travel~~ of at least one of a layer thickness of the piezoelectric element (10, 20, 30, 40, 50 or 60) and a number of layers of the piezoelectric element (10, 20, 30, 40, 50 or 60), and the activation voltage and the activation charge value are determined as a function of a correction factor, the correction factor measured as part of a manufacturing process.

9. (Original) The method as defined in claim 8, characterized in that the piezoelectric element (10, 20, 30, 40, 50 or 60) is an actuator in a fuel injection system.

10. (Currently Amended) The method as defined in claim 8, characterized in that the activation voltage and the activation charge values respectively, are a function of the correction factor and the piezoelectric element's (10, 20, 30, 40, 50 or 60) normal voltage[[,]] and the piezoelectric element's (10, 20, 30, 40, 50 or 60) normal charge ~~and a correction factor~~.

11. (Original) The method as defined in claim 10, characterized in that the correction factor is a function of the piezoelectric element's (10, 20, 30, 40, 50 or 60) normal travel distance and the piezoelectric element's (10, 20, 30, 40, 50 or 60) respective actual travel distance.

12. (Previously Presented) The method as defined in claim 11, characterized in that a control unit (D) determines that correction factor by dividing the piezoelectric

element's (10, 20, 30, 40, 50 or 60) normal travel distance to the piezoelectric element's (10, 20, 30, 40, 50 or 60) respective actual travel distance.

13. (Previously Presented) The method as defined in claim 10, characterized in that the control unit determines the correction factor as a function of temperature.

14. (Original) The method as defined in claim 13, characterized in that the normal travel distance and the respective actual travel distance are measured at substantially the same temperature.

Claim 15. (Canceled).

16. (Previously Presented) The method as defined in claim 10, characterized in that the correction factor is stored for each cylinder within an EEPROM of the control unit (D).

17. (Original) The method as defined in claim 16, characterized in that the correction factor can be read from the EEPROM for test purposes.

18. (Currently Amended) An apparatus for charging a piezoelectric element, comprising:

a control unit configured to control an activation voltage and an activation charge value to drive the piezoelectric element[[,]];

wherein the control unit is configured to adjust the activation voltage and activation charge value to compensate for a deviation caused by a manufacturing variation of at least one of a layer thickness of the piezoelectric element and a number of layers of the piezoelectric element; and

wherein the control unit is configured to determine the activation voltage and the activation charge value as a function of a correction factor, the correction factor measured in accordance with a manufacturing process.

19. (Previously Presented) The apparatus according to claim 18, wherein the piezoelectric element includes an actuator in a fuel injection system.

20. (Currently Amended) The apparatus according to claim 18, wherein the control unit is configured to determine the activation voltage and the activation charge value as a function of the correction factor and at least one of a normal voltage[[,]] and a normal charge ~~and a correction factor~~.

21. (Previously Presented) The apparatus according to claim 20, wherein the correction factor is a function of a normal travel distance of the piezoelectric element and an actual travel distance of the piezoelectric element.

22. (Previously Presented) The apparatus according to claim 21, wherein the control unit is configured to determine the correction factor in accordance with a division of the normal travel distance by the actual travel distance.

23. (Previously Presented) The apparatus according to claim 20, wherein the control unit is configured to determine the correction factor as a function of temperature.

24. (Previously Presented) The apparatus according to claim 22, further comprising an arrangement configured to measure the normal travel distance and the actual travel distance at substantially a same temperature.

25. (Currently Amended) A method for charging a piezoelectric element, comprising the ~~step~~ steps of:

defining, prior to charging, a value for an activation voltage and a value for an activation charge of the piezoelectric element ~~as a function of a batch~~ to compensate for a deviation caused by a manufacturing variation ~~in a travel~~ of at least one of a layer thickness of the piezoelectric element and a number of layers of the piezoelectric element; and

determining the activation voltage and the activation charge value as a function of a correction factor, the measuring factor determined in accordance with a manufacturing process.

26. (Previously Presented) The method according to claim 25, wherein the piezoelectric element includes an actuator in a fuel injection system.

27. (Currently Amended) The method according to claim 25, wherein the activation voltage and the activation charge are a function of a normal voltage, a normal charge and [[a]] the correction factor.

28. (Previously Presented) The method according to claim 27, wherein the correction factor is a function of a normal travel distance of the piezoelectric element and an actual travel distance of the piezoelectric element.

29. (Previously Presented) The method according to claim 28, further comprising the step of determining the correction factor by a control unit by dividing the normal travel distance by the actual travel distance.

30. (Previously Presented) The method according to claim 27, further comprising the step of determining the correction factor by a control unit as a function of temperature.

31. (Previously Presented) The method according to claim 30, further comprising the step of measuring a normal travel distance of the piezoelectric element and an actual travel distance of the piezoelectric element at substantially a same temperature.

32. (Previously Presented) The method according to claim 27, further comprising the step of measuring the correction factor as a part of [[a]] the manufacturing process.

33. (Previously Presented) The method according to claim 27, further comprising the step of storing the correction factor for each cylinder within an EEPROM of a control unit.

34. (Previously Presented) The method according to claim 33, further comprising the step of reading the correction factor from the EEPROM for test purposes